REPLACEMENT SHEET

Abstract

A heat-insulation material for a heat-insulation layer (3) for a carrier body (2) for preventing heat transfer between the carrier body and a surrounding area (7) therearound includes at least one luminous substance which is excitable for emitting luminescent light having a defined emission wavelength and includes at least one type of metal oxide containing at least one trivalent metal (A). Also described is an arrangement of at least one heat-insulation layer which contains the heat-insulation material and is applied to the carrier body. The described heat-insulation material is characterised in that the metal oxide is embodied in the form of a mixed oxide selected in a perovskite group of total formula AA'O3, and/or of pyrochlore of total formula A2B2O7, wherein A' is the trivalent metal and B is a tetravalent metal. The heat-insulation layer containing the heatinsulation material is preferably used for a gas turbine.